Section 5 Contents

5 Water Supply and Use

SECTION

UTAH STATE WATER PLAN - WEBER RIVER BASIN

Water supply and use are among the primary considerations for the overall planning and development of any drainage or region. The supply of water and its use, either current or projected, have a direct impact and limiting influence on an area's economic growth and overall quality of life.

5.1 Introduction

This section of the Weber River Basin Plan provides information and data relating to existing water supplies and current levels of water use by various domestic and commercial entities within the basin. Discussions are also given relating to interbasin diversions and water quality including their impact on overall water supply and use.

5.2 Background

The Ogden and Weber River drainages have experienced both extremes of the hydrological cycle: prolonged drought and excessive flooding. Although it is not uncommon for the basin to have individual years of below average precipitation in terms of snowpack, successive years of below average precipitation periodically occur causing moderate water shortages. An example was the drought year of 1977 which effectively depleted water storage within existing reservoirs to record lows making water rationing a reality in some areas of the basin.

At the other extreme of the hydrologic cycle, record high precipitation and snow pack levels combined with early high temperatures to produce massive flooding and related property damage in 1983-84. Floods along the Wasatch Front caused hundreds of millions of dollars in property damage and various other indirect costs.

Somewhere between the stated extremes of drought and flood, an average annual runoff occurs that can be stored and subsequently diverted for a number of beneficial uses within a given drainage. Although water supplies fluctuate within extremes, the Weber River Basin has a number of large reservoirs that effectively reduce the immediate impacts of drought and flood. These reservoirs also allow for a relatively constant and reliable water supply for water users in Weber, Davis, Morgan and Summit counties.

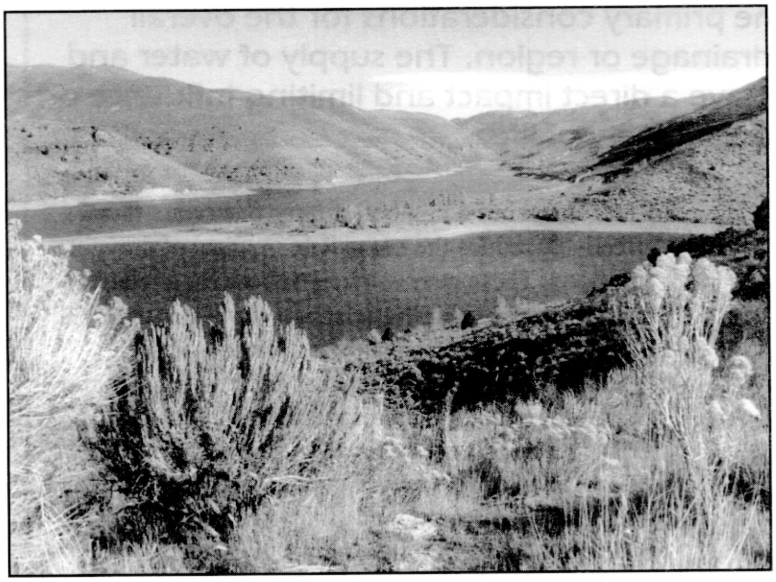
Water demand is somewhat diverse and includes an assortment of agricultural and municipal and industrial (M&I) uses. However, and with the current urbanization of agricultural areas, M&I water demand has steadily increased while the demand for agricultural irrigation water is on the decline.

An evaluation of historical stream flow records for the 1961-90 time period indicates the average annual water yield is 979,400 acre-feet. Total diversions of existing water sources are 933,400 acre-feet annually. The diversions include water taken from surface and groundwater sources for all water uses. The total annual diversions account for over 95 percent of the average annual yield. Diversions for various uses in the upper basins (above Weber and Ogden canyons) are returned to the Ogden and Weber rivers to be rediverted, primarily in Weber and Davis counties. This double counting of diversions must be taken into consideration when assessing the remaining level of water supplies that can be developed.

The Weber River Basin is a dynamic area with residential and commercial developments replacing farms and ranches. Current demographic data confirm the four counties are experiencing high population growth and related increases in municipal and commercial construction. This has reduced the acreage of local farms and ranches. As a result, diversions for irrigated agriculture have decreased and are being converted to M&I water use. A few major water provider agencies originally organized to service farms and ranches are currently in the process of converting existing storage and conveyance systems to provide secondary M&I water. This trend is expected to continue into the foreseeable future.

5.3 Water Supply

The Weber River Basin is considered a closed basin in terms of water source. The basin's water supply is provided almost entirely by the Ogden and Weber rivers drainages and other smaller drainages along the Wasatch Front from North Ogden to Bountiful. The exceptions are the flows from the Spiro Tunnel in the Snyderville Basin and a small diversion on the upper Provo River near Francis.



Lost Creek Reservoir

The old Spiro mining tunnel currently functions as an underground conduit for collected groundwater in western Summit and eastern Salt Lake counties. As a result, some groundwater from the Jordan River drainage finds its way to the upper Weber River drainage.

Water supplies are derived from surface and groundwater sources. As shown on Figure 5-1, the overall Ogden and Weber rivers are extensive and cover a four-county area. In addition, a number of small drainages existing along the western slope of the Wasatch Range from North Ogden to Bountiful also contribute to the overall water supply.

Groundwater supplies are provided by six local aquifers or groundwater basins. These basins are primary sources of culinary water throughout the drainage depending on the water quality of the underlying aquifer. Groundwater is a major factor in the overall supply and use of water in the Weber River Basin. More information and detailed discussions of groundwater development and use are provided in Section 19 Groundwater. The locations of each of the local aquifers is given on Figure 19-1.

5.3.1 Surface Water Supply

Agricultural and M&I surface water diversions (based on 92 water budget data) have been estimated at 521,200 acre-feet per year. A schematic presentation of the overall surface water diversions and average annual stream flows is given on Figure 5-2. A more detailed flow chart for the Snyderville Basin and Park City Area is shown on Figure 5-3.

Surface water supplies are determined from evaluations of historic stream flow data taken at selected gaging stations on the Weber and Ogden River systems. These gaging stations are typically maintained by the U.S. Geological Survey (USGS). The USGS records flow data at selected stations in cooperation with state agencies and publishes all data in annual summaries for distribution to the general public. Currently, 14 stream gaging stations are operating. Historically, and as shown on Figure 5-4, there have been 55 stream flow gaging stations in Weber, Davis, Morgan and Summit counties. Additional information regarding length of flow data, average annual flows, and USGS reference numbers for individual gaging stations is given in Table 5-1.

Annual flows at individual gaging stations fluctuate from year to year. These flows can vary to a significant degree depending on a number of hydrological factors and the existence of reservoirs upstream of a given gaging station. As an example of the extent of stream flow fluctuations, Figures 5-5 through 5-9 have been prepared as bar charts of annual flows for selected years of record. The locations of these gages are shown in Figure 5-4 and listed in Table 5-1.

Reservoirs are generally considered the backbone of most water reclamation projects. Seven major reservoirs have been constructed in or near the Weber River Basin as the main components of three federal water reclamation projects: Willard Bay, Causey, Lost Creek, East Canyon and Wanship reservoirs are generally associated with the Weber Basin Project; Pineview

Figure 5-1
WEBER AND OGDEN RIVER DRAINAGE BASINS

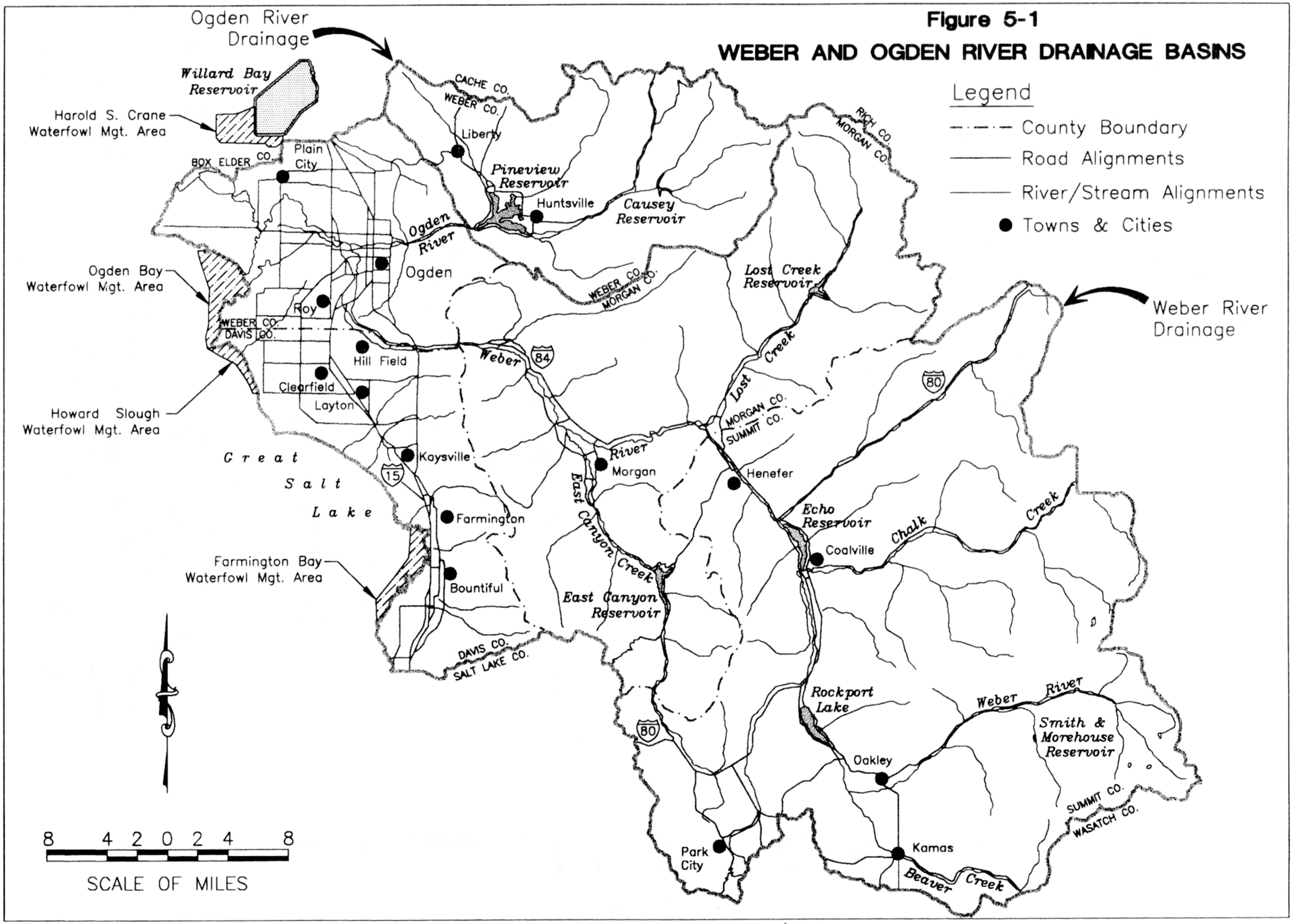


Figure 5-2

WEBER RIVER SYSTEM
AVERAGE ANNUAL STREAM FLOW AND DIVERSIONS (1961-1990)

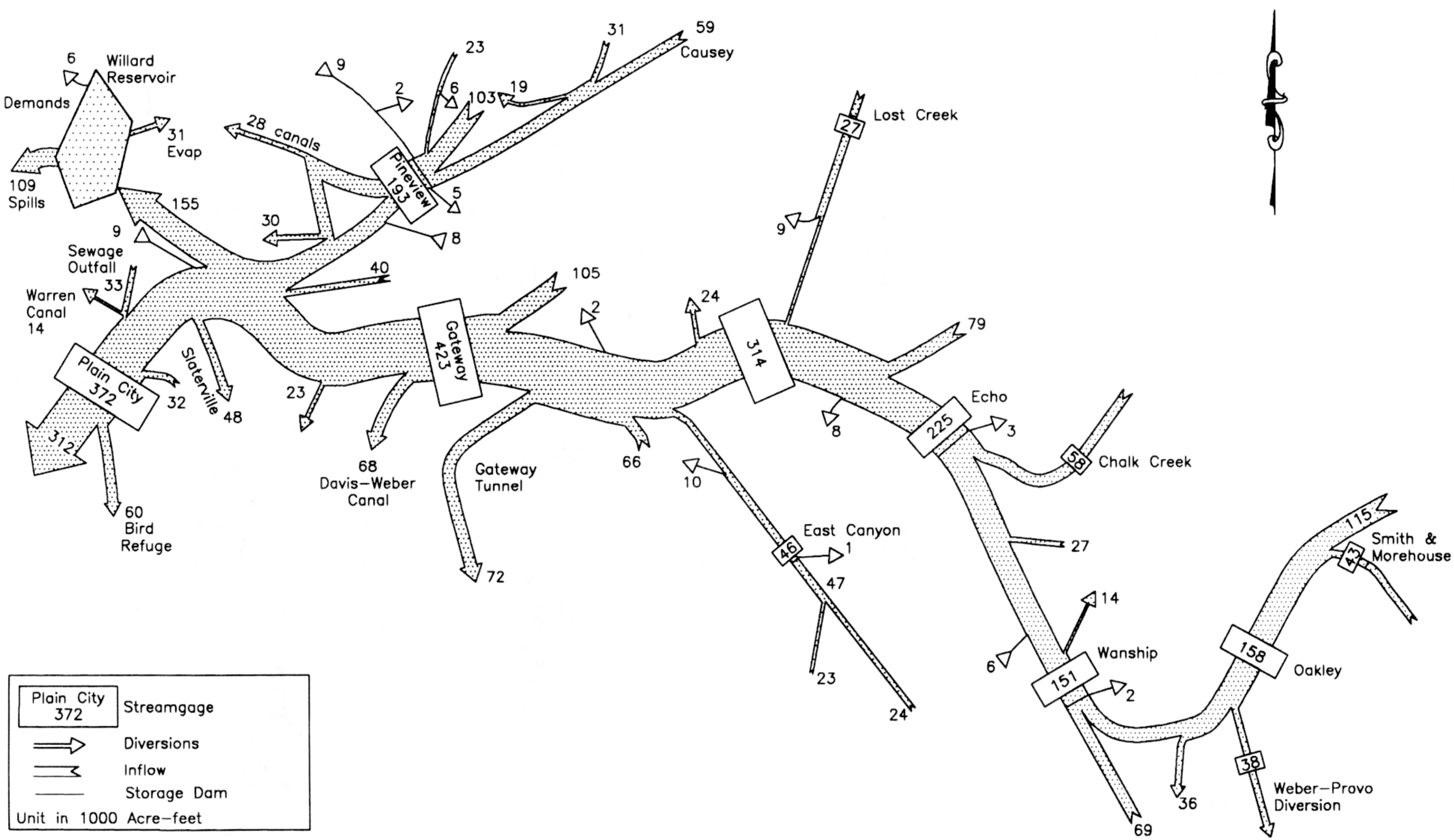


Figure 5-3

SNYDERVILLE BASIN AND PARK CITY AREA AVERAGE ANNUAL STREAM FLOW AND DIVERSIONS

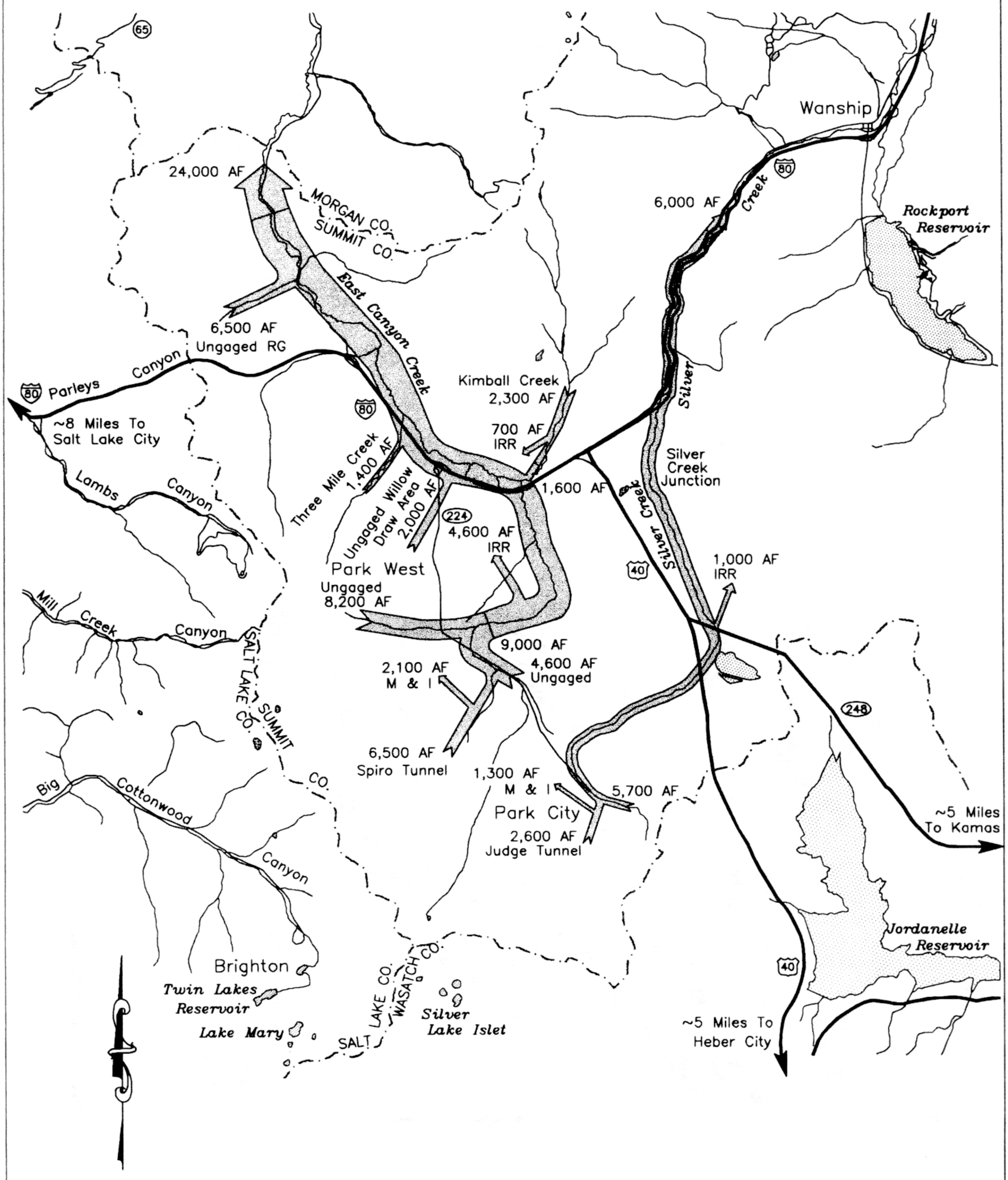
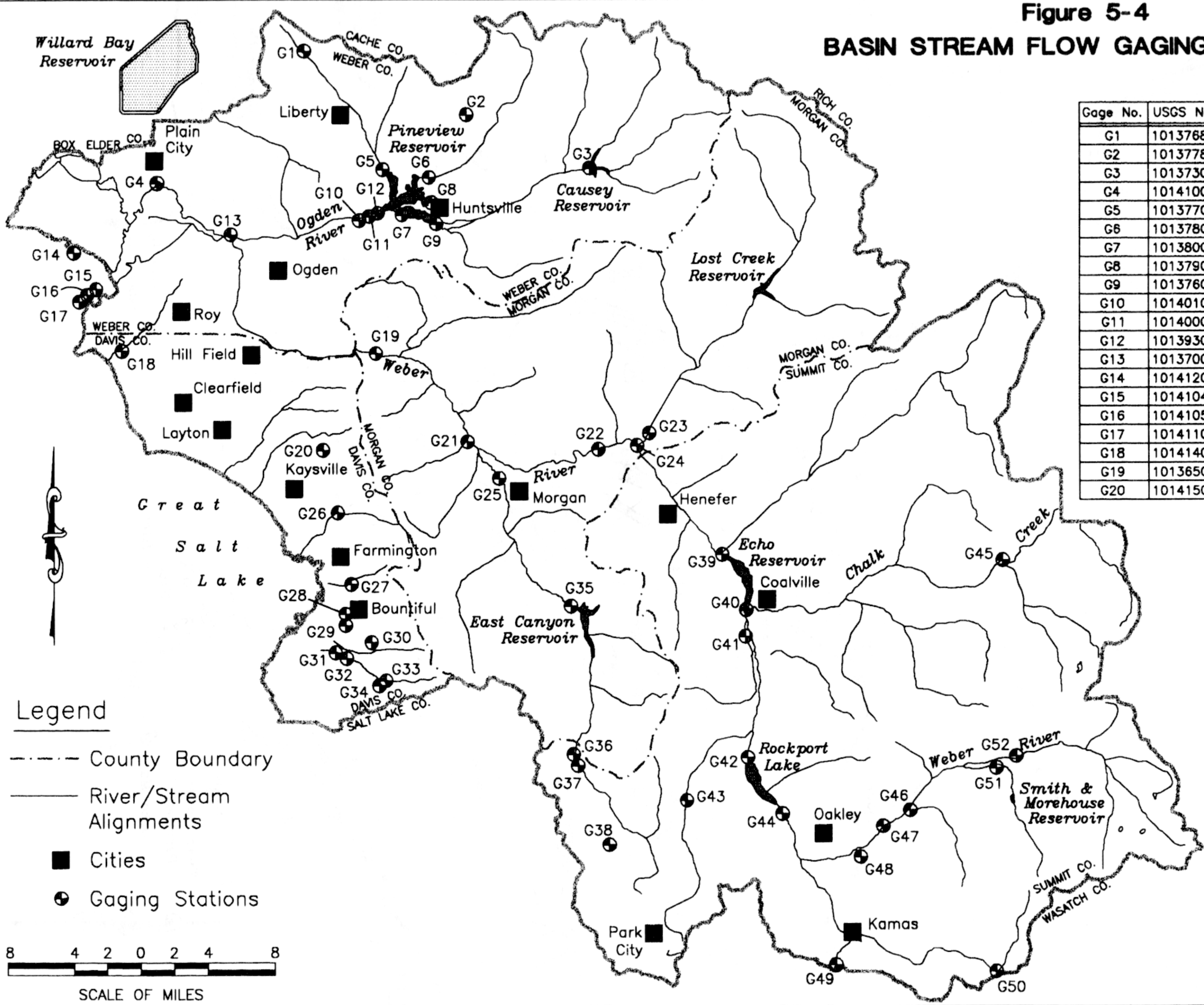


Figure 5-4
BASIN STREAM FLOW GAGING STATIONS



Gage No.	USGS No.
G1	10137680
G2	10137780
G3	10137300
G4	10141000
G5	10137700
G6	10137800
G7	10138000
G8	10137900
G9	10137600
G10	10140100
G11	10140000
G12	10139300
G13	10137000
G14	10141200
G15	10141040
G16	10141050
G17	10141100
G18	10141400
G19	10136500
G20	10141500

G21	10136000
G22	10133500
G23	10132900
G24	10133000
G25	10135500
G26	10142000
G27	10142500
G28	10143000
G29	10143500
G30	10144000
G31	10145126
G32	10145125
G33	10144500
G34	10145000
G35	10134500
G36	10133900
G37	10133895
G38	10133700
G39	10132000
G40	10131000
G41	10130500
G42	10129500
G43	10130000
G44	10129300
G45	10130700
G46	10128200
G47	10128500
G48	10129000
G49	10154500
G50	10154000
G51	10128000
G52	10127500

Table 5-1
AVERAGE ANNUAL FLOW AT GAGING STATIONS

Reference Number	Number	Stream Gage Name	Years of Record	Annual Flow (acre-feet)
G52	10127500	WEBER R AB SMITH & MOREHOUSE CR NR OAKLEY, UT	1947	77,530
G51	10128000	SMITH & MOREHOUSE CREEK NEAR OAKLEY, UT	1947,1976-1987	44,689
G46	10128200	SOUTH FORK WEBER RIVE NR OAKLEY, UT	1965-1974	18,537
G47	10128500	WEBER RIVER NEAR OAKLEY, UT	1905-1995	159,113
G48	10129000	WEBER PROVO DIV CANAL AT OAKLEY, UT	1932-1969	32,028
G44	10129300	WEBER RIVER NEAR PEOA, UT	1957-1977	126,584
	10129350	CRANDALL CREEK NEAR PEOA, UT	1964-1973	3,375
G42	10129500	WEBER RIVER NEAR WANSHIP, UT	1951-95, 1957-60, 1989-95	125,237
G43	10130000	SILVER CREEK NEAR WANSHIP, UT	1942-46, 1982-86, 1990-95	5,461
G41	10130500	WEBER RIVER NEAR COALVILLE, UT	1927-1995	152,848
G45	10130700	EAST FORK CHALK CREEK NEAR COALVILLE, UT	1965-1974	25,074
G40	10131000	CHALK CREEK AT COALVILLE, UT	1928-1995	49,272
G39	10132000	WEBER RIVER AT ECHO, UT	1927-60, 1989-95	190,732
	10132500	LOST CREEK NEAR CROYDON, UT	1921-24, 1941-74, 1976, 1989-93	22,001
G23	10132900	LOST CREEK AT CROYDON, UT	1966-1967	11,232
G24	10133000	LOST CREEK AT DEVIL'S SLIDE, UT	1905-06, 1921-33	40,076
G22	10133500	WEBER RIVER AT DEVIL'S SLIDE, UT	1905-1955	314,272
	10133540	KIMBALL CR ABV E CYN CR NR PARK CITY, UT	1990-1992	494
G38	10133700	THREE MILE CREEK NEAR PARK CITY, UT	1964-74,1982-84	1,633
G37	10133895	E CYN CR AB BIG BEAR HOLLOW NEAR PARK CITY, UT	1990-1995	21,604
G36	10133900	EAST CANYON CREEK NEAR PARK CITY, UT	1982-1985	43,755
G35	10134500	EAST CANYON CREEK NEAR MORGAN, UT	1932-1993	40,750
G25	10135500	EAST CANYON CR BLW DIVERSIONS NR MORGAN, UT	1951-1955	51,925
G21	10136000	WEBER RIVER NEAR MORGAN, UT	1951-1955	368,990
G19	10136500	WEBER RIVER AT GATEWAY, UT	1890-02, 1919-93	406,796
G13	10137000	WEBER RIVER AT OGDEN, UT	1951-1958	259,111
G3	10137300	S FRK OGDEN R BLW CAUSEY DAM NR HUNTSVILLE, UT	1966-1967	48,085
	10137500	SOUTH FORK OGDEN RIVER NEAR HUNTSVILLE, UT	1922-1995	82,407
G9	10137600	SOUTH FORK OGDEN RIVER AT HUNTSVILLE, UT	1960-1965	56,361
G1	10137680	NORTH FORK OGDEN RIVER NEAR EDEN, UT	1964-1974	8,756
G5	10137700	NORTH FORK OGDEN RIVER NEAR HUNTSVILLE	1960-1965	25,559
G2	10137780	MID FRK OGDEN R ABV DIV NR HUNTSVILLE, UT	1964-1974	23,063
G6	10137800	MIDDLE FORK OGDEN RIVER AT HUNTSVILLE, UT	1958-1965	15,060
G8	10137900	SPRING CREEK AT HUNTSVILLE, UT	1958-65,1986-87	6,951
G7	10138000	MIDDLE FORK OGDEN RIVER NEAR HUNTSVILLE, UT	1925-1927	13,265
G12	10139300	WHEELER CREEK NEAR HUNTSVILLE, UT	1959-1995	7,242
G11	10140000	OGDEN R BY PINEVIEW DAM NEAR OGDEN, UT	1937-1959	64,165
G10	10140100	OGDEN RIVER BLW PINEVIEW RES NR HUNTSVILLE, UT	1989-1995	56,996
G4	10141000	WEBER RIVER NEAR PLAIN CITY, UT	1908-1995	435,112
G15	10141040	HOOPER SLOUGH NEAR HOOPER, UT	1975-78,1979-83	9,655
G16	10141050	SOUTH FORK WEBER CANAL NEAR HOOPER, UT	1972-1975	19,261
G17	10141100	SOUTH FORK WEBER RIVER NEAR HOOPER UT	1972-1975	293,105
G14	10141200	NORTH FORK WEBER RIVER NEAR HOOPER, UT	1972-1975	183,550
G18	10141400	HOWARD SLOUGH AT HOOPER, UT	1972-1984	21,175
G20	10141500	HOLMES CREEK NEAR KAYSVILLE, UT	1951-1966	2,671
G26	10142000	FARMINGTON CR ABV DIV NR FARMINGTON, UT	1950-72,1976-79	9,111
G27	10142500	RICKS CR ABV DIVERSIONS NR CENTERVILLE, UT	1951-1966	1,608
G28	10143000	PARRISH CR ABV DIVERSIONS NR CENTERVILLE, UT	1950-68	1,139
G29	10143500	CENTERVILLE CR ABV DIV NEAR CENTERVILLE, UT	1950-1980	2,188
G30	10144000	STONE CREEK ABV DIV NEAR BOUNTIFUL, UT	1951-1966	2,287
G33	10144500	MILL CREEK NEAR BOUNTIFUL, UT	1914	6,627
G34	10145000	MILL CR AT MUELLER PARK NR BOUNTIFUL, UT	1951-1986	4,659
G32	10145125	STORM DRAIN E OF ORCHARD DR AT BOUNTIFUL, UT	1984-1986	1,743
G31	10145126	STORM DRAIN TO MILL CR, 620 S 200 W, BOUNTIFUL, UT	1984-1986	879
G49	10154500	WEBER PROVO CANAL NEAR WOODLAND, UT	1932-69,1989-95	30,155

Figure 5-5
ANNUAL FLOWS
Weber River near Oakley

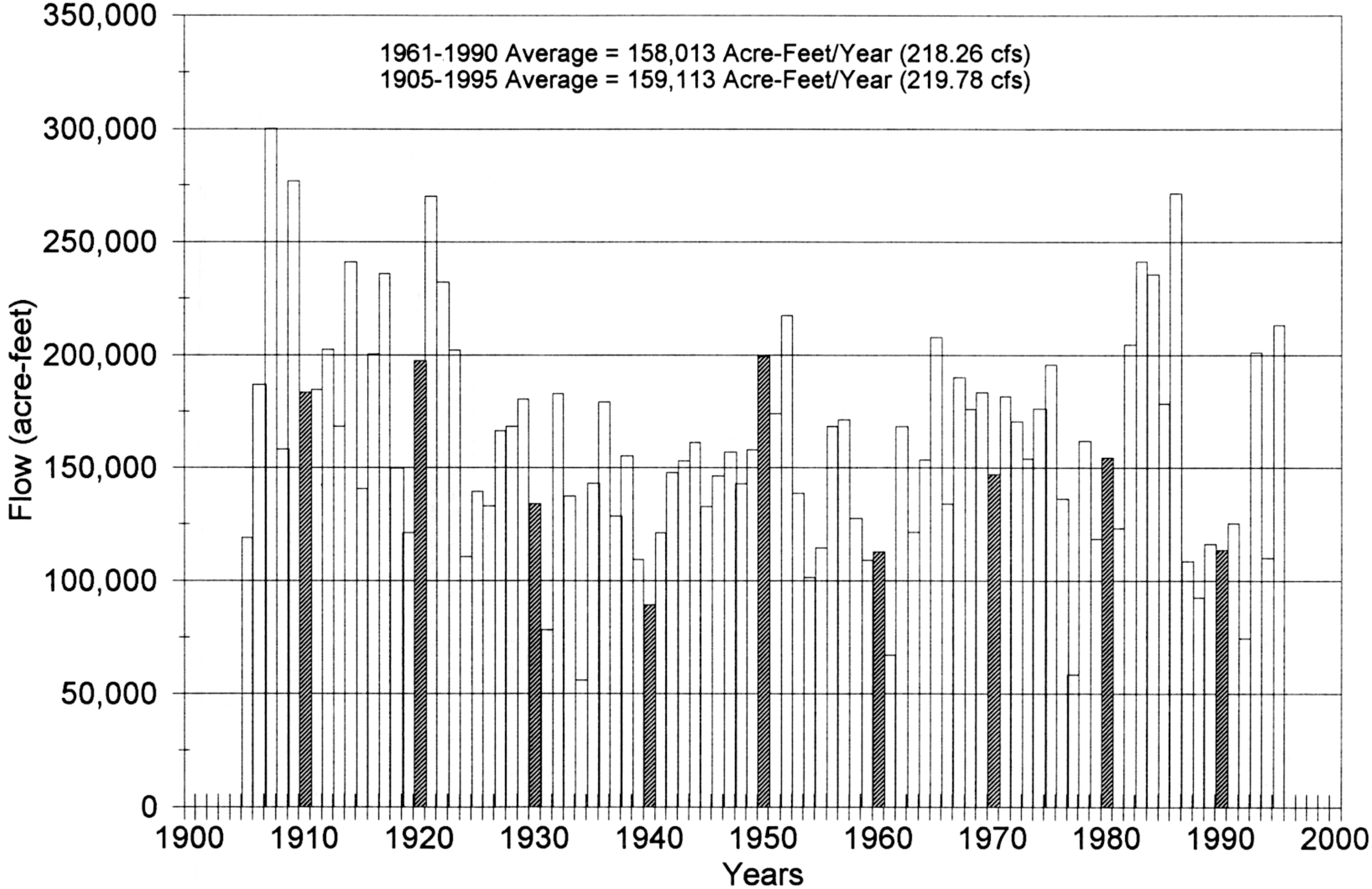


Figure 5-6
ANNUAL FLOWS
Weber River at Gateway

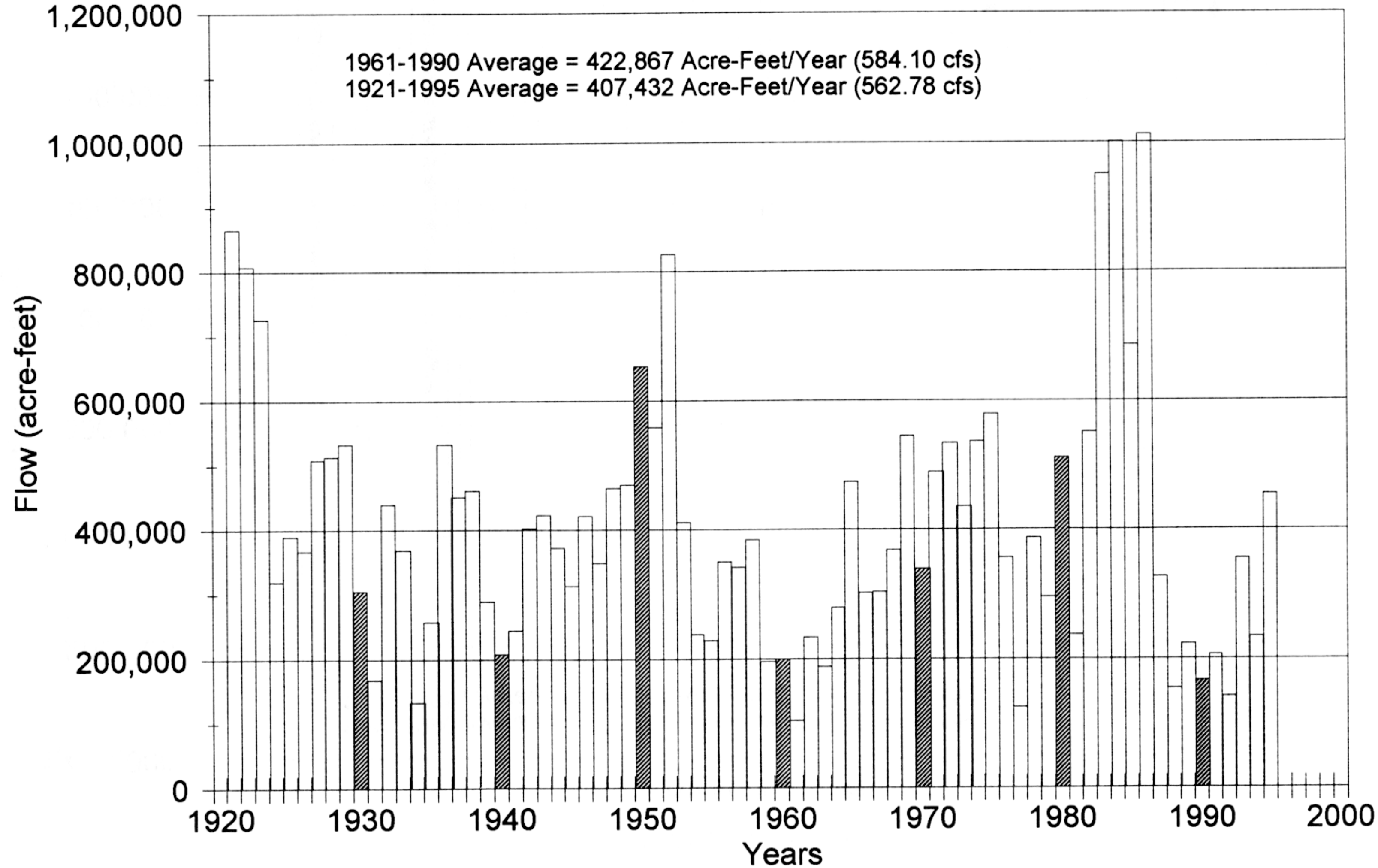


Figure 5-7

ANNUAL FLOWS

Weber River near Plain City

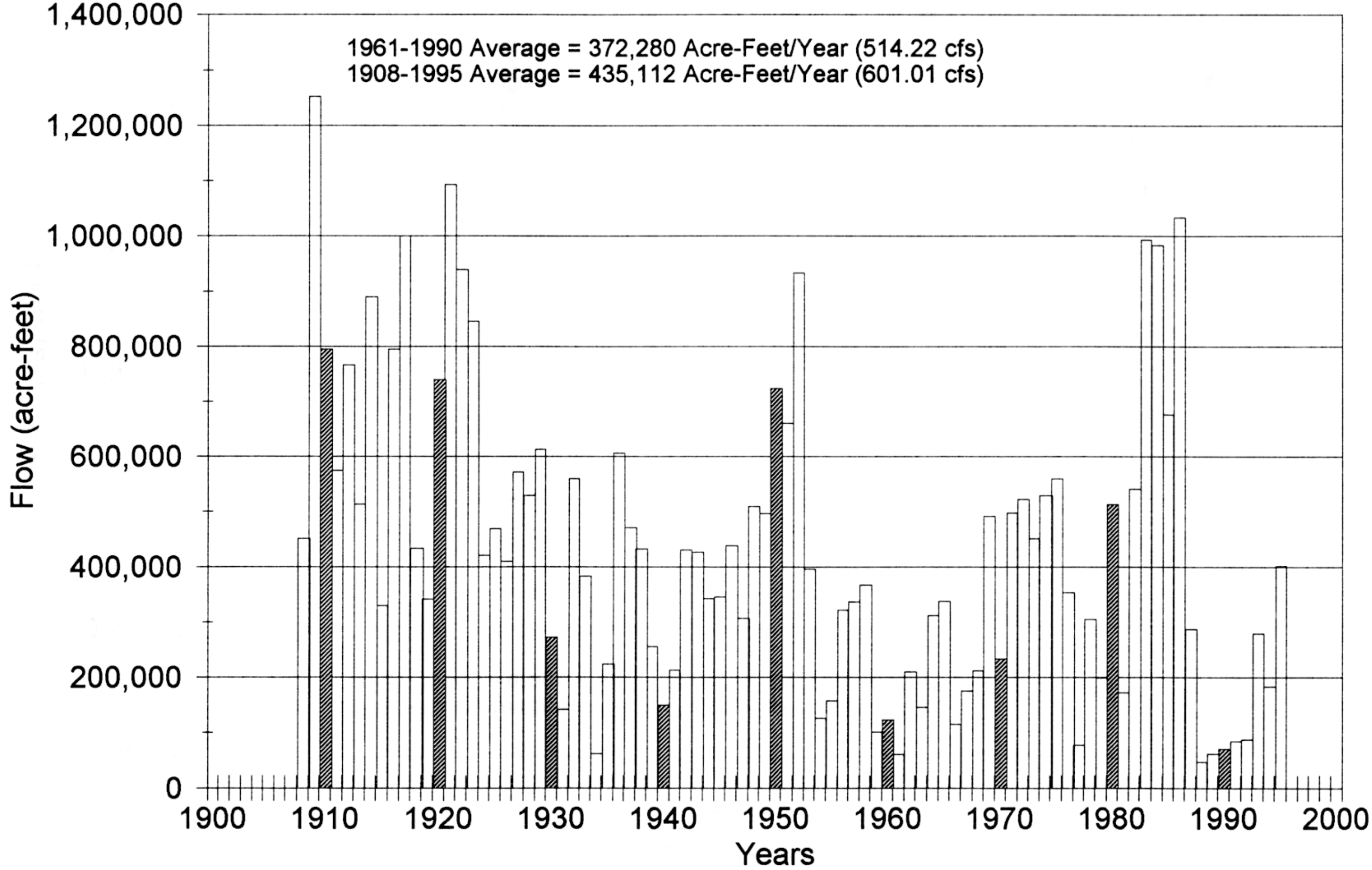


Figure 5-8

ESTIMATED ANNUAL FLOWS

Ogden River Below Pineview Reservoir

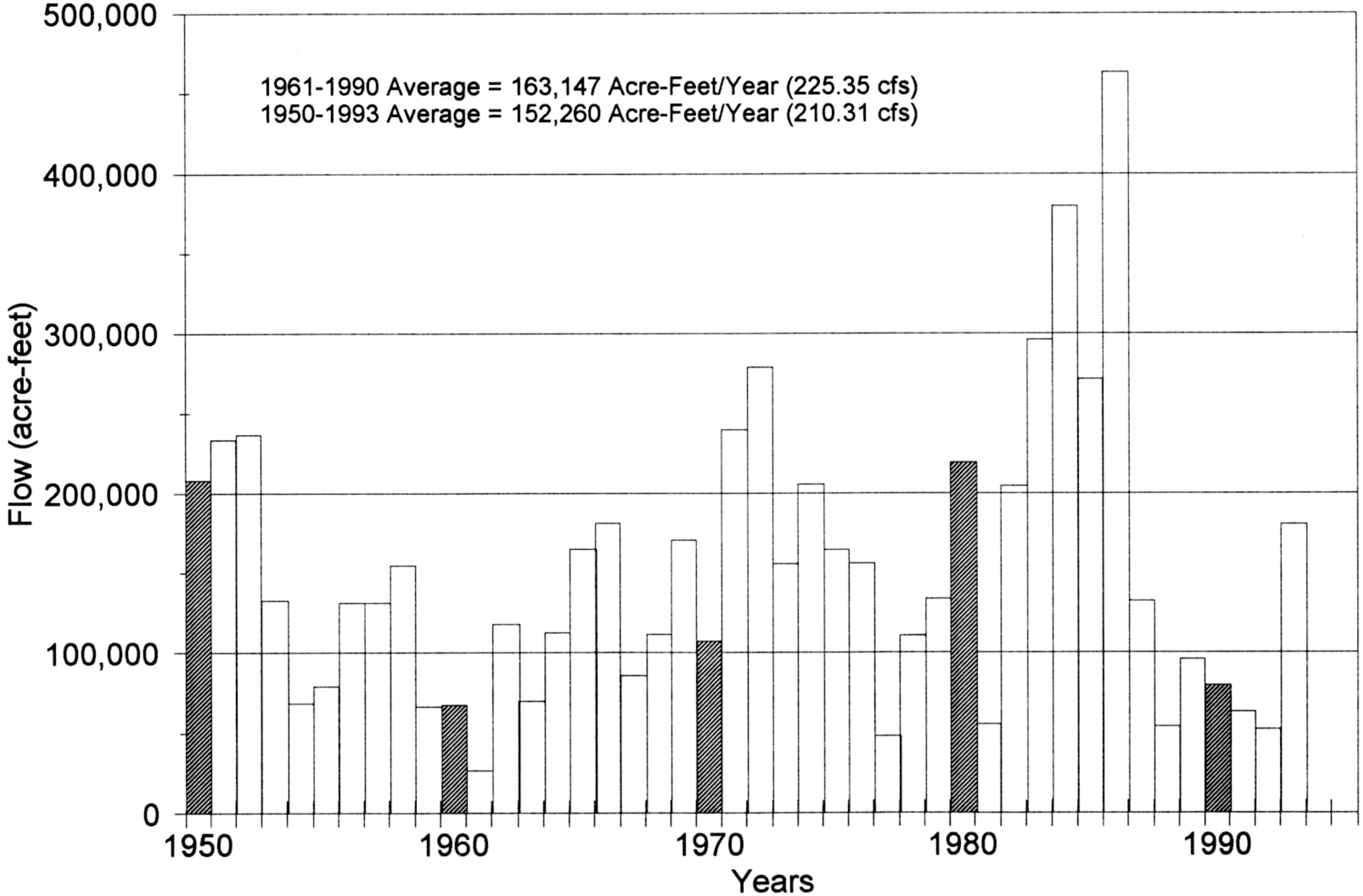


Figure 5-9
ANNUAL FLOWS
South Fork Ogden River near Huntsville

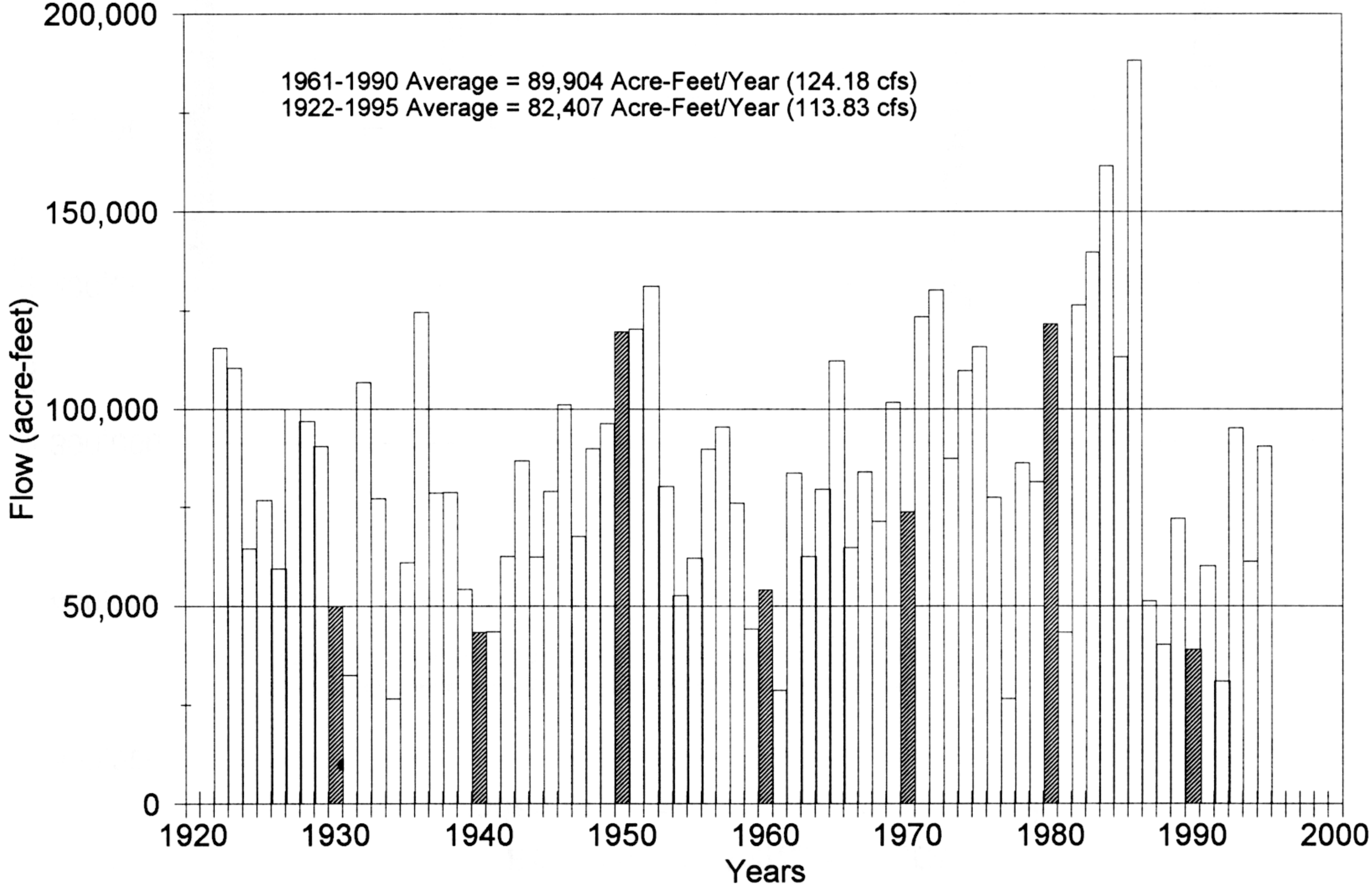


Table 5-2 ACTIVE STORAGE CAPACITIES IN MAJOR RESERVOIRS	
Reservoir	Active Storage (acre-feet)
Smith and Morehouse	7,600
Rockport Lake (Wanship Dam)	60,900
Echo	74,000
Lost Creek	20,000
East Canyon	48,100
Causey	6,900
Pineview	110,200
Willard (A.V. Watkins Dam)	198,200
Total Active Storage	525,900

Reservoir was initially constructed as the main component of the Ogden River Project; with Echo Reservoir was constructed as part of the Weber River Project. The last major reservoir within the Weber Basin was constructed by the Weber Basin Water Conservancy District on Smith and Morehouse Creek approximately 10 miles east of Oakley in Summit County.

Water resources in the Weber River Basin are generally considered fully developed. As summarized in Table 5-2, the combined active storage capacities of these reservoirs totals 525,900 acre-feet. When compared with the average annual basin yield of 979,400 acre-feet, it is seen that local water provider agencies can store 54 percent of the basin's potential water supplies during an average water year.

5.3.2 Groundwater Supply

The Weber River Basin contains six groundwater basins; the East Shore Area, Ogden Valley, Central Weber Valley, Park City, Rhodes Valley and the Weber River above Oakley. The groundwater basins east of the Wasatch Front (upper basins) are generally considered to be independent aquifers when compared with the East Shore Area (lower basin) groundwater basin. The upper and lower groundwater basins are hydraulically isolated by consolidated rock formations associated with the Wasatch Range. The upper groundwater basins, however, contribute to surface water flows near the mouths of Weber and Ogden canyons which are the primary source of recharge water for the lower East Shore Area aquifer.

Table 19-1 summarizes the current annual pumpage for each of the groundwater basins. Detailed discussions of groundwater hydrogeologic features are given in Section 19.

5.4 Water Use

The Weber River Basin has historically had a mixed economic base supported by irrigated agriculture, large federal military installations, commercial and industrial businesses. In recent years, the growth of residential developments encroached on local farms and ranches. The resulting conversion of agricultural lands to residential and commercial developments has also dictated a gradual conversion of basic water demand from irrigated agriculture to municipal and industrial uses.

5.4.1 Agricultural Water Use

Although it has been stated that irrigated agriculture is on the decline, it remains the single largest user of developed water supplies in the Weber River Basin. Estimates for 1987 indicate 472,700 acre-feet of water is diverted annually to basin farms and ranches. However, the trend of replacing local farms and ranches with urban development has been established, and that trend that is expected to continue. The rate of decline of irrigated agriculture has been evaluated based on various landuse studies completed by the Division of Water Resources. The irrigated land in 1968 was estimated at 160,000 acres as compared with 138,600 acres in 1987. Over the same period of time, diversions for irrigated agriculture dropped from 643,500 acre-feet to 472,700 acre-feet. Water use and acreages associated with irrigated agriculture in 1987 are given in Table 5-3.

5.4.2 Municipal and Industrial Water Use

Municipal and industrial (M&I) water use includes all diversions to residential developments, commercial and industrial businesses, and various institutional facilities. Municipal and industrial uses include self-supplied private domestic, commercial and industrial users. Municipal and industrial diversions can be made from culinary (treated to drinking water standards) and secondary (nontreated) water systems. Culinary water is primarily used for "indoor" purposes, while secondary water is used for "outdoor" purposes. Current M&I demands are summarized in Table 5-4.

Indoor uses generally include water for cooking, drinking, bathing, personal sanitation, miscellaneous cleaning, and personal use inside the home and within commercial businesses. Outdoor uses generally include the irrigation of lawns, gardens, landscaping, and washing of driveways and automobiles.

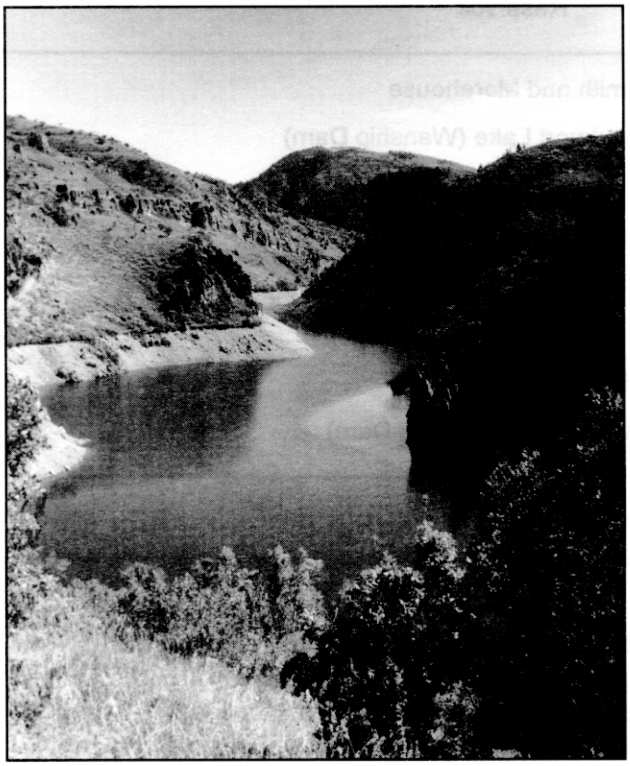
5.4.3 Wetlands and Riparian Water Use

Wetlands and riparian areas generally support water intensive vegetation as shown on Figure 5-10. These areas are associated with marshes and selected reaches of existing river and stream banks.

Managed wetlands include the Harold S. Crane, Ogden Bay, Howard Slough and Farmington Bay Waterfowl Management Areas. Total wetland and riparian water use for the basin has been estimated at 270,000 acre-annually.

5.4.4 Instream Flow Requirements

With the exception of Echo Reservoir, minimum instream flows are required (according to terms and conditions of exiting water right appropriations) on all reaches of the Weber and Ogden rivers between existing reservoirs and extending to the East Shore Area. The exception of a minimum instream flow requirement occurs immediately downstream of Echo Dam. The construction of Echo reservoir was completed in 1931. At that time, the establishment of minimum instream flows was not required to construct major federally sponsored water reclamation projects and related



Causey Reservoir

facilities. As a result, no minimum instream flow has ever been established for the Weber River downstream of Echo Reservoir. However, existing surface water right appropriations downstream of Echo Reservoir provide adequate habitat for all sport fish species common to the area. Additional information regarding minimum instream flows and fish habitat maintenance is given in Section 14, Fisheries and Water-Related Wildlife.

5.4.5 Recreation

Each reservoir is operated and managed to provide a reasonable degree of outdoor recreation by maintaining conservation pools for boating and fishing. Although recreation is an important aspect of any major water reclamation project or related facility, it is usually considered a secondary use when compared with flood control and water storage for agricultural, domestic and commercial uses. Recreational boating and fishing are regularly impacted by the need to operate and maintain reservoirs for flood control and water supplies. Water

Figure 5-10
WETLAND AREA LOCATIONS

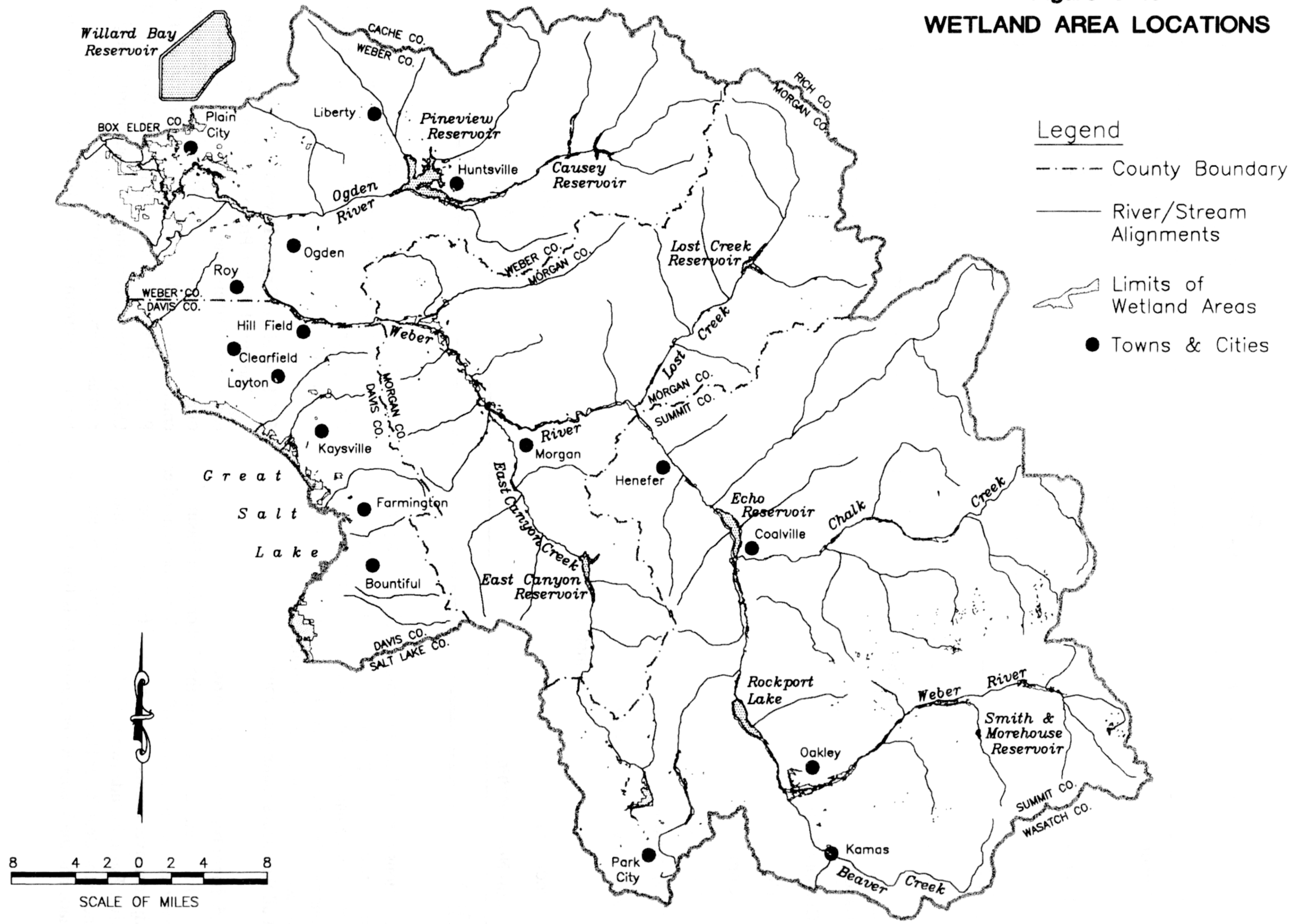


Table 5-3 ACREAGES AND WATER USE FOR IRRIGATED AGRICULTURE (1987)		
County	Acreages (acres)	Diversion (acre-feet)
Weber	61,900	214,900
Davis	36,200	125,700
Morgan	11,400	41,550
Summit	29,100	90,550
Total	138,600	472,700

Table 5-4 MUNICIPAL AND INDUSTRIAL WATER USE (1992)	
Description	(acre-feet)
Culinary (Potable)	
Residential	53,100
Commercial/Institutional	33,220
Industrial	5,700
Total Potable	**92,000**
Secondary (Non-Potable)	
Residential, Commercial & Institutional	59,800
Industrial	29,200
Total Non-Potable	**80,000**
Total	**172,000**

elevations behind dams fluctuate significantly depending on the need to store projected runoff, meet seasonal water user demands and perform scheduled and nonscheduled maintenance. These unavoidable water surface fluctuations can inhibit water-related recreation at all the basin's major reservoirs.

5.5 Interbasin Diversions

Five water diversions in the Weber River Basin result in a limited transfer of water either to or from other adjacent river basins. Water transfers from the Weber River Basin include two to the Provo River Basin and one to the Bear River Basin. Two water transfers are made into the Weber River Basin. One is from the Jordan River Basin via the Spiro Tunnel connecting Salt Lake County to Park City. The remaining diversion is from the Provo River near Francis, part of which is used in the Kamas area.

5.5.1 Weber-Provo Diversion Canal

The initial Weber-Provo Diversion Canal, with a capacity of 210 cfs, was constructed in 1928-31 as one of the features of the Weber River Project. The canal was enlarged after 1942 to 1,000 cfs under the Provo River Project. The canal takes water from the Weber River near Oakley, transports it nine miles southward through Kamas Valley, and delivers it to the Provo River near Francis, upstream of the Jordanelle Reservoir. Along the way, the canal intercepts and diverts water from Beaver Creek, a tributary of the Weber River. Diversions are made under an existing water right appropriated to the Provo River Water Users Association which allows for a maximum annual diversion from the Weber River of 136,500 acre-feet. For the 1961 to 1990 period, diversions ranged from 7,171 acre-feet to 88,440 acre-feet and averaged 38,000 acre-feet.

5.5.2 Ogden-Brigham City Canal

Construction of the Ogden River Project included the Ogden-Brigham City Canal that conveys up to 120 cfs of irrigation water from Pineview Reservoir north along the east bench area of Ogden to Box Elder County. For an average water year, 18,000 acre-feet of water is diverted to small farms and residential homes in Weber and Box Elder counties. About 11,000 acre-feet of the average annual diversion remains in the Weber River Basin (Ogden River drainage) with 7,000 acre-feet exported to Box Elder County.

5.5.3 Ontario Tunnel

The Ontario Tunnel was constructed as a drainage facility to alleviate excessive groundwater flows within existing mine shafts in and around the Park City area. The tunnel, constructed south of Park City, discharges an estimated 10,000 acre-feet of groundwater annually from the Weber River Basin to the reservoir pool behind Jordanelle Dam within the Provo River Basin.

5.5.4 Spiro Tunnel

The Spiro Tunnel was constructed as a major mining project in the Park City Mining District. The tunnel extends from its portal in Park City to several secondary tunnels within the Wasatch Mountain Range in western Summit County. The various alignments of the secondary tunnels extend to locations near the natural drainage divide between Salt Lake and Summit counties. In addition to providing basic access to a number of subsurface minerals in the Park City area, the main and secondary tunnels also collect significant flows from groundwater aquifers in the Weber and Jordan River drainage basins. Collected groundwater is discharged from the tunnel's main portal located near the southwestly corner of the Park City Municipal Golf Course. In recent years, the Park City Municipal Corporation constructed a water treatment plant immediately adjacent to the tunnel's point of discharge. The plant treats and distributes tunnel groundwater to various residential and commercial developments.

Due to the close proximity of secondary tunnel alignments to the dividing line separating the Weber and Jordan river drainages, some groundwater within the Jordan River Basin is collected and transported to the Weber River Basin through the tunnel system. The annual amount of groundwater collection from the Jordan River drainage was determined as a result of litigation between the United Park Consolidated Mines Company and Salt Lake City Corporation. Annual flows from the tunnel average around 6,500 acre-feet per year.

5.6 Water Quality

With the possible exception of areas subjected to sustained residential growth, water quality in the upper Weber and Ogden River basins is generally considered good to excellent. The treatment of raw surface water to drinking water standards typically requires only conventional filtration processes. The treatment of groundwater generally requires chlorination only.

Water quality in the lower reaches of the Weber River is considered moderate to poor by drinking water standards. However, judged by standards established for agricultural irrigation and general outdoor use, water in the lower basin is considered more than adequate for the irrigation of crops, livestock pastures, and as a source of residential secondary water.

Poor water quality in the lower basin has historically been the result of high concentrations of Biological Oxygen Demand, dissolved and suspended solids from slaughter houses, food processing facilities, metal finishing plants and sediment loadings associated with runoff (tailwater) from farms and ranches in western Weber County. Water quality in the lower basin, however, has improved in recent years primarily due to the closure of slaughter houses and agricultural produce processing plants in the Ogden area.

The variation in groundwater quality in the basin typically parallels that of surface water. Water pumped from aquifers in the upper drainages and the east bench areas of the Wasatch Front is considered to have good to excellent quality by drinking water standards. However, water quality within the East Shore Area deteriorates as well sites approach the Great Salt Lake. Wells in relative close proximity to the Great Salt Lake often produce high concentrations of dissolved solids (brackish water) including salts. A more detailed discussion of water quality, including monitoring and treatment, is given in Sections 11, Drinking Water; 12, Water Quality; and 19, Groundwater. ❖